



SK15U100AAPU

Schottky Rectifier Diode

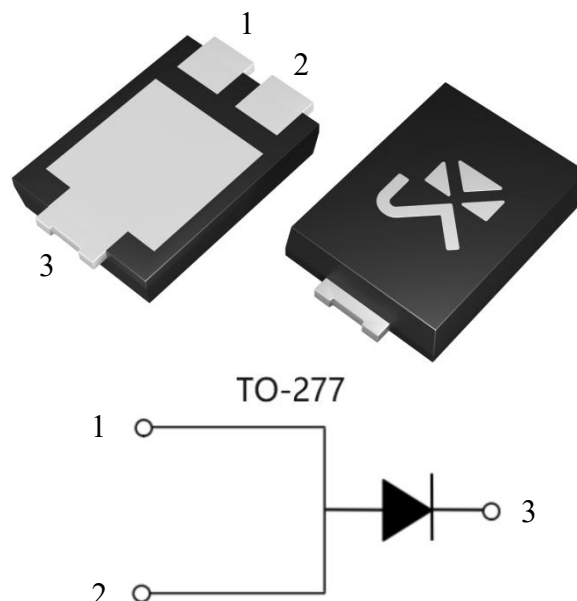
Ultra Low VF 0.62V@15A,25°C

Features

- Trench MOS schottky technology
- High surge current capability
- Low peak forward voltage
- Low power loss
- High efficiency

Application

- Schottky rectifier design for high frequency
- Switched mode power supplies, such as adaptors
- On board DC/DC converters.



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Limit	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average forward current	$I_{F(AV)}$	15	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	350	A
Junction temperature range	T_J	-55~+150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-40~+150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test condition	Min	Typ	Max	Units
Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$	100			V
Peak Forward Voltage	V_F	$I_F=5\text{A}$		0.48		V
		$I_F=10\text{A}$		0.55		V
		$I_F=15\text{A}$		0.62	0.75	V
		$I_F=5\text{A}, T_A=125^\circ\text{C}$		0.41		V
		$I_F=10\text{A}, T_A=125^\circ\text{C}$		0.52		V
		$I_F=15\text{A}, T_A=125^\circ\text{C}$		0.59	0.70	V
Peak Reverse Current	I_R	$V_R=100\text{V}$			100	μA
		$V_R=100\text{V}, T_A=125^\circ\text{C}$		3	70	mA
Typical junction capacitance	C_J	$V_R=5.0\text{V}, f=1\text{MHz}$		1000		pF

Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Ambient, Max.	$R_{\theta JA}$	75	$^\circ\text{C/W}$
Thermal Resistance, Junction to Mount, Max	$R_{\theta JM}$	34	$^\circ\text{C/W}$



Typical Characteristics

Figure 1. Instantaneous Forward Characteristics

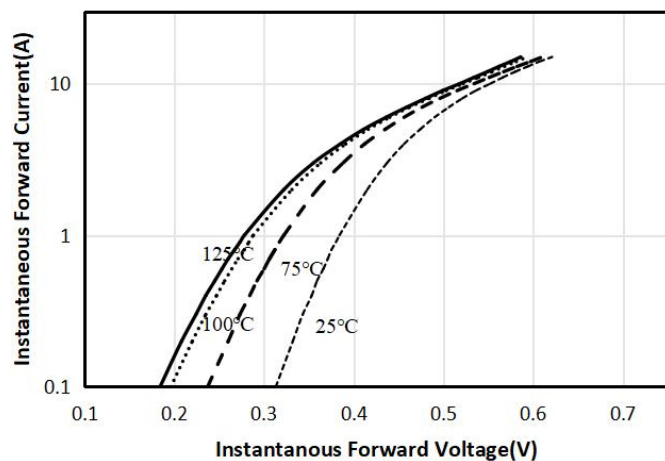


Figure 2. Typical Leakage Current

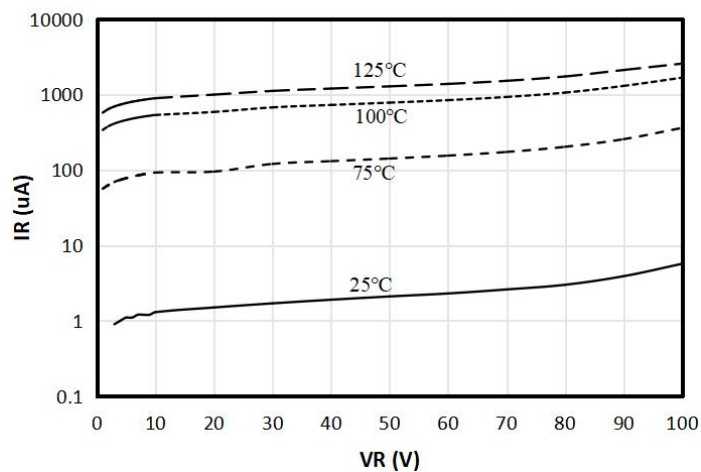
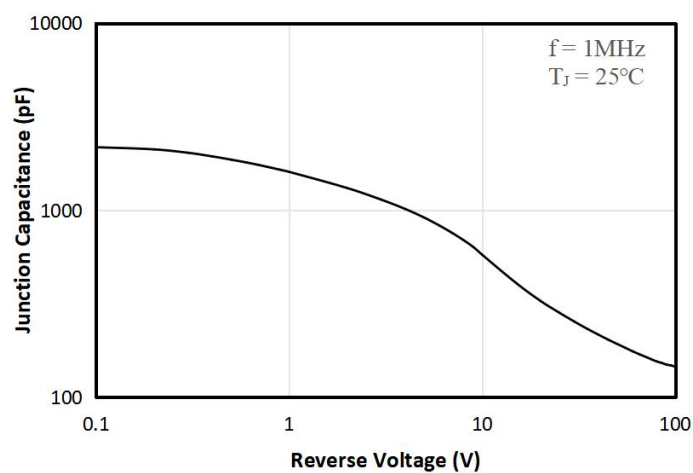


Figure 3. Typical Junction Capacitance



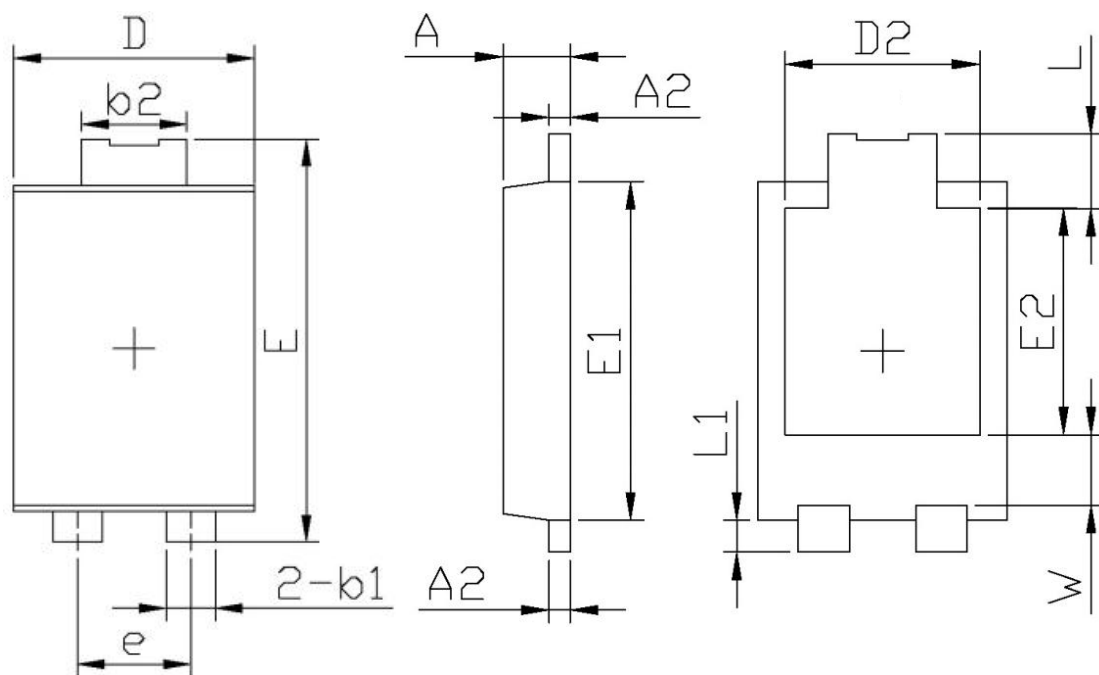


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Package Information

TO-277

Dimensions in mm



Dim	Min	Max
A	1.05	1.25
A2	0.33	0.43
b1	0.80	0.90
b2	1.70	1.88
D	3.90	4.05
D2	3.054 Typ	
E	6.40	6.60
e	1.84 Typ	
E1	5.30	5.50
E2	3.549 Typ	
L	0.75	0.95
L1	0.45	0.65
W	1.10	1.41



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